

tially non-blocking ridges over the Rockies and/or eastern Siberia. The closed High aloft to the north helps to maintain a weak stationary Mackenzie High, while a zonal flow in the Pacific feeds deepening Lows into the Gulf of Alaska. The combination results in a tightened gradient over the Big Delta area which can result in moderately long duration of east-southeast wind.

Type D (bottom, left) illustrates a common case in which a large-amplitude, short-wavelength flow aloft moving across the Pacific brings rapidly deepening Lows into the Bering Sea and Bristol Bay, and intensifying migratory Highs across Alaska into northwestern Canada. The wind commences when the migratory High reaches the Mackenzie Basin, even though a Gulf Low is absent, and endures for a moderate number of hours. The movement of the High helps to distinguish this type from Type A.

Type E (bottom, center) illustrates a case typical of the late autumn. It is very similar to Type D in synoptic evolution with the exception that the Lows reaching the Bering Sea are not prone to deepen markedly, and consequently no ridge is built up over the Gulf of Alaska. The Mackenzie High, migratory or otherwise, is absent, and frontal systems penetrate northward across Alaska. In this type, the Big Delta wind is of brief duration, and occurs in advance of frontal passage.

Type S (bottom, right) illustrates the usual concomitant to south winds at Big Delta. Close parallelism to Type E is evident, but an important difference lies in the fact that the major storm center moving into the Bering Sea is favored to move more-or-less bodily across Alaska in a flow aloft which is stronger and more southerly than in the case of Type E. A strong southerly gradient is set up over the Big Delta region which usually results in a föhn-type wind at the surface. This synoptic pattern,

in a somewhat weakened form, is very common during the warmer months of the year, a fact which serves to explain why strong south winds—unlike the east-southeast variety—are experienced all year at Big Delta.

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